

TECHNICAL MANUAL



MARCO POLO



CREDITS

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INSTALLATION AND START-UP

Configuration Requirements

- IBM PC AT 100% compatible 386, 486 or higher.
- 25 Mhz 486 or faster recommended.
- MS DOS 5.0 or later versions.
- 2 MB RAM
- 575 KB of free conventional memory required under DOS, or 590 KB free under WINDOWS.
- 1024 KB of free XMS (eXtended Memory Specification).
- VGA graphics, 256 colors.
- CD-ROM drive (150K/second minimum sustained transfer rate).
- MSCDEX 2.2 or later.
- Sound cards: Sound Blaster Pro or later or 100% compatibles.
- Enough free space on C: drive for save game files (168 KB per saved game).

Starting Under Windows

Insert the Marco Polo disc into the CD-ROM drive, which for convenience we shall call E: in this manual. (The actual letter will vary from system to system.)

To start the game, select the RUN command from the File menu of the PROGRAM MANAGER. Next, type E:\MARCO in the Command Line box, and click the OK button. Warning: make sure the Marco Polo disc is always inside the CD-ROM drive and that the drive is closed.

If the game does not load, or if you are returned automatically to Windows, quit the session and return to DOS by pressing the keys Alt and F4 simultaneously. Then follow the instructions under the section
STARTING UNDER MS-DOS.

Starting Under MS-DOS

Insert the Marco Polo disc into the CD-ROM drive, which for convenience we shall call E:. If you are in Windows or a DOS Shell program, quit/exit to return to DOS. At a prompt, type E: and press the Enter key. Next, type MARCO and press Enter. The game should start automatically. If you encounter problems, or if an error message appears, refer to the section entitled TROUBLESHOOTING GUIDE (page 5).

Precautions

When playing Marco Polo, make sure the disc is inside the CD-ROM drive and that the drive is closed.

CD-ROM discs require as much care as audio CDs for storage and handling. If you hold the disc by the edges only and put it back in its case immediately after use, you should not have to clean it.

We recommend the use of a mouse. If you do not have one, you can use the keyboard.

COMMANDS

Keyboard

Use the arrow keys to move the cursor.

Use the DEL key to confirm and for all left mouse button actions.

Use the space bar for all right mouse button actions.

Use the ESC key to access the PAUSE MENU.

Use the F2 key to reduce sound volume, and the F3 key to increase it.

Selecting

Use the mouse to move the cursor around the screen. When it encounters an action area, the area is indicated by text or a frame.

Confirming

Click the left mouse button to confirm the option you have selected.

Setting Values

When a situation has values that can be changed, click on the value with the right mouse button to increase the amount or the left button to decrease it.

Note: If the option is not a number, you can click any mouse button.

Page Corner

Click on the turned-up page corner at the bottom right of the screen to return to the previous screen.

Note: When you are in the SUBURBS, this will end your turn for the week. In the LOCAL MAP you switch to the OVERALL MAP (and vice versa).

Help

At any point in the game, you can obtain spoken information on how the game works. Position the cursor on the area of the screen you are unsure about and press the F1 key.

Setting the Sound Volume

At any point in the game, you can adjust the sound volume by pressing F2 to decrease it and F3 to increase it. You can also access this function in the Travel Log.

TROUBLESHOOTING GUIDE

WARNING: The troubleshooting suggestions below only work if you are in MS-DOS. If you are in Windows, or the DOS Prompt from Windows, you must first quit Windows. If you're not sure, type EXIT and press the Enter key. If nothing happens, you're in DOS. If you end up in Windows, or a DOS shell, you must quit to DOS. Select Exit from the Program Manager's File menu to quit Windows.

PROBLEM: PROGRAM DOES NOT LOAD PROPERLY

Do you have the correct hardware according to the Configuration Requirements section at the beginning of this manual? Check the required devices on your system with the installation utilities provided with them. Check the Sound card and CD-ROM drive, especially.

Are you using any special peripherals such as a scanner or network card? Try disabling their drivers, or disconnecting the devices. Reset your computer and try again.

PROBLEM: THE MESSAGE

"SORRY, NOT ENOUGH MEMORY" APPEARS

Do you have 575 KB or more free conventional memory? To check, type MEM at a prompt and press the Enter key. The bottom will have a number for "Largest executable program size." The number should be 575 K or more.

Note: 1 KB = 1024 bytes, so 575 KB is 588,800 bytes.

To resolve problems due to lack of memory try to:

- 1) Optimize the memory.
- 2) Remove any unnecessary drivers/programs from memory and create a minimum boot disk.

Note: Do NOT simply buy more memory and do NOT delete any programs or data from your hard drive! The problem comes from DOS' original 640 KB limit, and how many drivers/programs are loaded within this limit at start-up.

1) Optimizing Your Memory

If you have MS-DOS 6.0 or higher, you can use the MEMMAKER utility to try to get more conventional memory free. Simply type MEMMAKER at a DOS prompt and press Enter. After the Welcome screen, choose the Express setup with the space bar and press Enter to continue. On the screen that asks if you have any programs that require expanded memory (EMS), hit the space bar to select NO, and press Enter. (See note on expanded memory.) MEMMAKER will restart your system twice and when done it will display a memory report. There should be enough conventional memory now. If not, try option 2, making a boot disk.

If you have MS-DOS 5.0, there's no MEMMAKER, so things are a little trickier... You should probably follow the instructions for option 2, making a boot disk. (Though you can use those instructions to optimize the memory on your usual C: drive configuration.)

If you have another version of DOS, such as PC-DOS 6.x or Novell DOS 7, each of these has it's own way of optimizing memory. PC-DOS has a utility pair called RAMSETUP and RAMBOOST for optimizing memory. Check your PC-DOS manual for details. Novell DOS 7 has the SETUP utility that can do marginal optimizing, but generally it can only be done by hand - like MS-DOS 5.0. Check option 2, boot disk instructions and your Novell DOS 7 manual.

If you have a third party memory manager, such as Quarterdeck's QEMM or Helix Software's Netroom, they should have no trouble freeing up enough conventional memory. If they haven't set up enough conventional memory, run the OPTIMIZE utility for QEMM, or the CUSTOMIZE utility for Netroom. They work in much the same way as MEMMAKER.

Note about expanded memory:

Some programs require expanded (EMS) memory to run. If you have such a program, try leaving expanded memory enabled in these optimizing suggestions above, and see if you can get enough conventional memory for Marco Polo. Leaving expanded memory enabled will make it more difficult to make enough room, but it's something to try. If it does not work, check option 2, making a boot disk. The optimizing utilities listed above will have settings for enabling/disabling expanded memory. If you don't see such a setting, check your documentation or online help.

2) Making a Boot Disk

Boot disks have become a standard solution to memory problems associated with games. Games are generally the most demanding with memory, and often different games require different, and incompatible, settings. With a boot disk, you can start your system with a floppy disk that has configuration files tuned to the specific needs of a particular game, without having to change your standard C: drive configuration. Thus, when you're finished playing for one sitting, remove the boot disk from the drive and restart the system normally to return to your standard configuration.

The following instructions are as specific as possible. Unfortunately, since there are thousands of possible configurations, we can't give exact instructions on every driver/utility to leave in or take out. Try the instructions below, but if it's just too daunting, give us a call.

To create a boot diskette follow these steps:

- Insert a blank diskette into your A:\floppy drive.
(You cannot boot from the B:\drive.)
- At the DOS prompt type "FORMAT A:/S", and press the ENTER key.
The disk will be formatted and the DOS boot files will be copied to it.
When finished, do not format another, and you will return to the DOS prompt.
- Type "COPY C:\CONFIG.SYS A:" and press the ENTER key.
- Type "COPY C:\AUTOEXEC.BAT A:" and press the ENTER key.

- Change to the A:\ drive by typing "A:" and press the ENTER key.
- To edit the Config.Sys file, type "EDIT A:\CONFIG.SYS" and press the ENTER key. Remove drivers and variables not necessary to the correct functioning of your sound card, CD-ROM drive and mouse. Some Config.Sys lines which may be safely deleted include lines beginning with DEVICE= and DEVICEHIGH= and ending with SETVER.EXE, IFSHLP.SYS, and ANSI.SYS. Be sure to leave the DEVICE= lines with HIMEM.SYS and EMM386.EXE!
- Verify that the HIMEM.SYS and EMM386.EXE lines are the first and second DEVICE= lines respectively, and change any following lines that still begin with DEVICE= to DEVICEHIGH=. This will load these drivers into upper memory.
- To disable expanded (EMS) memory, make sure there is a "NOEMS" on the same DEVICE= line after EMM386.EXE. (If there's a "RAM", replace it with "NOEMS".)
- Make sure there are both DOS=HIGH and DOS=UMB lines. If not, insert them. (You can also have a combined DOS=HIGH, UMB.) Also, make sure there's a FILES= line set to at least 30, and a BUFFERS= line set to at least 15. Any of these lines can appear anywhere in the file.
- Select SAVE from the FILE menu and then select EXIT to return to the A:\ prompt.
- To edit the Autoexec.Bat file, type "EDIT A:\AUTOEXEC.BAT" and press the ENTER key. Autoexec.Bat lines which may be safely deleted include SMARTDRV or SHARE. You should also delete lines for network drivers, virus protectors, scanner/fax drivers, and any lines that begin with "CALL" or "WIN". Be sure to leave in lines that refer to PATH, SET SOUND, SET BLASTER, MSCDEX, and MOUSE.
- For any lines that begin with C:\, insert a LOADHIGH and a space at the beginning of the line, before the C:\. (C:\DOS\MOUSE becomes LOADHIGH C:\DOS\MOUSE.)
- Select SAVE from the FILE menu, then select EXIT to return to the A:\ prompt.

Following are example Config.Sys and Autoexec.Bat files, before and after editing. (Your files SHOULD look rather different. Don't copy these files exactly.)

BEFORE EDITING

CONFIG.SYS

DEVICE=C:\DOS\SETVER.EXE
DEVICE=C:\DOS\HIMEM.SYS
DEVICE=C:\DOS\EMM386.EXE RAM X=C901

DOS=HIGH
FILES=10
BUFFERS=10,0
DEVICE=C:\MMEDIA\SNDSYS\A:220

DEVICE=C:\WINDOWS\FSHLP.SYS
DEVICE=C:\DRVSND_CD.SYS\D:MSCD001

FCBS=4,0
STACKS=9,256
SHELL=C:\DOS\COMMAND.COM C:\DOS/P

AUTOEXEC.BAT

@ECHO OFF
PROMPT \$P\$G
PATH=C:\C:\DOS;C:\WINDOWS;C:\DRV;

SET BLASTER=A220 I5 D1 T4
SET SOUND=C:\MMEDIA
C:\DOS\SMARTDRV.EXE
LH /L:1,22322 C:\DOS\SHARE.EXE
SET TEMP=C:\DOS
CALL C:\STARTNET.BAT
C:\DOS\MSCD.EXE /D:MSCD001 /M:10

C:\MOUSEMOUSE.COM

WIN

AFTER EDITING ON BOOT DISK

CONFIG.SYS

DEVICE=C:\DOS\HIMEM.SYS
DEVICE=C:\DOS\EMM386.EXE
NOEMS X=C901

DOS=HIGH,UMB
FILES=30
BUFFERS=15,0
DEVICEHIGH=
C:\MMEDIA\SNDSYS\A:220

DEVICEHIGH=
C:\DRVSND_CD.SYS\D:MSCD001

FCBS=4,0
STACKS=9,256
SHELL=
C:\DOS\COMMAND.COM C:\DOS/P

AUTOEXEC.BAT

@ECHO OFF
PROMPT \$P\$G
PATH=
C:\C:\DOS;C:\WINDOWS;C:\DRV;
SET BLASTER=A220 I5 D1 T4
SET SOUND=C:\MMEDIA

TEMP=C:\DOS

LOADHIGH
C:\DOS\MSCD.EXE
/D:MSCD001 /M:10
LOADHIGH
C:\MOUSEMOUSE.COM

Leave the finished boot disk in the A drive and reboot your system. Your computer should start up from this disk. Type "MEM" at a DOS prompt and press the ENTER key to check the largest executable program size. If you do not yet have at least 575KB of free memory, check your DOS manual, or contact our Customer Service department at 310-576-1885.

PROBLEM: THE MESSAGE "SORRY, NOT XMS MEMORY" OR "SORRY, NOT ENOUGH XMS MEMORY" APPEARS.

You don't have enough eXtended memory set up to play the game. Make sure there's a line for HIMEM.SYS in your Config.Sys file you use for the game. It should be the first or second line, before any line for EMM386. Also, make sure your memory isn't all allocated for expanded memory exclusively. If you're using MS-DOS 5.0, or the Windows version of EMM386, these may be using up all available memory for expanded memory, leaving none for XMS. Try disabling expanded as specified in optimizing memory and boot disk instructions, above.

This message will also appear if you have less than 2 meg of RAM on your system, in which case you must install more.

PROBLEM: NO SOUND, NO MUSIC OR POOR QUALITY

Most of these problems come from a bad sound card setup. Run the Install or Setup program supplied with your sound card to verify settings. This utility should also set up a SET BLASTER= line in your Autoexe.Bat file. If there is no such line, check your sound card manual for instructions, or call the manufacturer for help. Don't simply add the line yourself without some way of verifying the settings.

(This line MUST be in Autoexec.Bat, and it MUST be in ALL CAPS.)

Sound cards are notorious for configuration errors. About fifty percent of technical problems with software/hardware are sound card related.

Since there are so many possible problems related to sound cards, this section is disproportionately short. Call us or your sound card manufacturer for assistance.

PROBLEM: THE VIDEO APPEARS SLOW OR JERKY

Your CD-ROM should have a sustained data throughput of at least 150k per second. To check your drive's estimated throughput, get to a DOS prompt at the CD drive letter, E: for example, type SPEED and press the Enter key. After 4 seconds the transfer speed will be displayed. (This number will change, mistakenly, on repeat tries if you are using a disk cache for the CD.)

This speed can be aided by setting a proper number of buffers on the MSCDEX line in Autoexec.Bat. To set more (or less) buffers, edit the \M:xx switch on the same line as MSCDEX. We recommend a setting of 15, but remember that each buffer uses 2KB of memory. For example, a line that says:

```
LOADHIGH C:\DOS\MSCDEX.EXE/D:MSCD001 \M:10 - should be changed to read  
LOADHIGH C:\DOS\MSCDEX.EXE/D:MSCD001 \M:15
```

Most drives will do better with higher numbers, some actually do better with less. Some drives may also have a similar buffers setting for their driver DEVICE line in Config.Sys. Check your CD-ROM manual for details.

PROBLEM: THE MESSAGE

"YOUR DISK MAY BE DIRTY" APPEARS

The CD might be too dirty to read properly. Take it out of the drive and clean it with a dry, clean, soft and lint-free cloth. Wipe in a straight line from the center outward to the edge of the disk. Never clean your disk with a solvent or abrasive agent.

PROBLEM: SYSTEM CRASHES/HANGS

Technically, this should never happen. However, if it does, it's likely due to a bad hardware/software conflict and not Marco Polo. Check your system for possible problems (a likely culprit might be a bad sound card configuration). Or try the instructions above for making a boot disk.

And, there's always our...

CUSTOMER SERVICE

If you have tried all of the suggestions offered in the Troubleshooting section and are still having problems, contact I•Motion Customer Service at (310) 576-1885, or fax us at (310) 576-1889. You can also call our Tech BBS at (310) 576-1820 at standard modem settings up to 14.4kbps. We'll have E-Mail and Online service forums set up soon, call us for details.

To expedite answers to your questions, please note the following facts before contacting our Technical Support staff:

Type of machine (486, Pentium, etc.): _____

DOS version: _____

Name of graphics card: _____

Sound board type: _____

Name and type of CD-ROM drive: _____

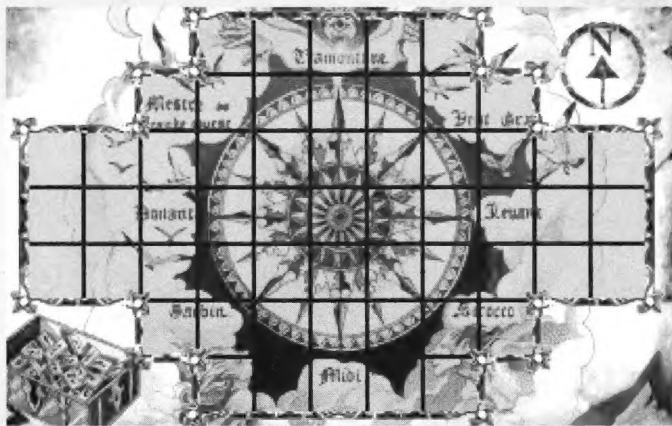
Hard disk compressor (if any): _____

Largest size of executable program*: _____

Total free expanded memory (EMS)*: _____

Total free extended memory (XMS)*: _____

*To determine these settings, type "MEM" at the DOS prompt and press Enter.





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